

ABSTRACT

Winda Lestari Siregar, 2021. *Development of Project based Electric Lighting Installation E-modules in Vocational High Schools.*

The purpose of this research is to produce a valid, practical, and effective e-modules for Project Based Learning in Electrical Lighting Installation. This e-modules of the Project Based Learning in Electrical Lighting Installation module is designed to improve students' understanding that it can improve student learning outcomes.

The method in this study uses Research and Development with 4-D development procedures (Define, Design, Develop, Disseminate). The data of analysis technique uses descriptive analysis techniques to describe the validity, practicality, and effectiveness of the e-modules for Project Based Learning in Electrical Lighting Installation.

The results obtained from this development research: The validity of the e-module of the Project Based Learning-based Electric Lighting Installation is declared valid on the media and material aspects. The practicality of the e-module for Project Based Learning-based Electrical Lighting Installation from the responses of educators and students is stated to be very practical. The effectiveness of the e-module for Project Based Learning-based Electrical Lighting Installation is stated to be effective in improving learning outcomes. Based on the findings of this study, it is concluded that the Project Based Learning e-module Electrical Lighting Installation based on Project Based Learning is declared valid, practical, and effective to be used as a learning aid in the subject of Electrical Lighting Installation.

Keywords: *E-module, Electrical Lighting Installation, Project Based Learning.*

ABSTRAK

Winda Lestari Siregar, 2021. Pengembangan E-modul Instalasi Penerangan Listrik berbasis *Project Based Learning* Proyek SMK. Tesis Pascasarjana Fakultas Teknik Universitas Negeri Padang.

Tujuan dari penelitian ini untuk menghasilkan e-modul Instalasi Penerangan Listrik berbasis *Project Based Learning* yang valid, praktis, dan efektif. E-modul Instalasi Penerangan Listrik berbasis *Project Based Learning* ini dirancang untuk meningkatkan pemahaman peserta didik sehingga dapat meningkatkan hasil belajar peserta didik.

Metode dalam penelitian ini menggunakan *Research and Development* dengan prosedur pengembangan 4-D (*Define, Design, Develop, Disseminate*). Teknik analisis data menggunakan teknik analisis deskriptif untuk mendeskripsikan validitas, kepraktisan, dan keefektifan e-modul Instalasi Penerangan Listrik berbasis *Project Based Learning*.

Hasil yang diperoleh dari penelitian pengembangan ini: Validitas e-modul Instalasi Penerangan Listrik berbasis *Project Based Learning* dinyatakan valid pada aspek media dan aspek materi. Praktikalitas e-modul Instalasi Penerangan Listrik berbasis *Project Based Learning* dari respon pendidik dan peserta didik dinyatakan sangat praktis. Efektivitas e-modul Instalasi Penerangan Listrik berbasis *Project Based Learning* dinyatakan efektif dalam meningkatkan hasil belajar. Berdasarkan temuan penelitian ini disimpulkan bahwa Instalasi Penerangan Listrik berbasis *Project Based Learning* e-modul Instalasi Penerangan Listrik berbasis *Project Based Learning* dinyatakan valid, praktis, dan efektif untuk dimanfaatkan sebagai alat bantu pembelajaran pada mata pelajaran Instalasi Penerangan Listrik.

Kata kunci: E-modul, Instalasi Penerangan Listrik, *Project Based Learning*.